

CLAIM REJECTIONS

REMARKS

Claims 1–6 are pending. Claim 1 is amended herein. No new matter has been added as a result of the amendments.

35 U.S.C. §103 Rejections

Claims 6–23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kloen et al. (WO 00/350013), hereinafter referred to as Kloen, in combination with Suthar et al. (US Publication 2004/0232414), hereinafter referred to as Suthar.

The Examiner is respectfully directed to currently amended independent Claim 1, which recites a semiconductor structure comprising: (emphasis added)

a substrate;

a pad area, wherein said pad area is disposed directly above and in physical contact with said substrate, and wherein said pad area comprises:

a first layer of metal disposed directly above said substrate, wherein said first layer of metal is in immediate physical contact with said substrate;

a second layer of metal disposed above said first layer of metal;

a layer of dielectric disposed between said first metal layer and said second metal layer;

a via disposed within said dielectric layer wherein said via electrically couples said first and said second metal layer; and

one or more subsequent layers of metal between said first and said second metal layers, wherein said via comprises one or more of a plurality of vias and wherein one or more of said vias electrically couples one or more of said subsequent layers with one or more of each other, said first and said second layers of metal; and

an active device of said semiconductor structure disposed in said substrate.

Claims 2–6 depend from currently amended independent Claim 1 and recite further limitations of the claimed invention. Applicant respectfully asserts that the present invention is neither shown nor suggested by the Kloen reference, alone or in combination with the Suthar reference.

Specifically, the Kloen reference does not teach or show “a pad area, wherein said pad area is disposed directly above and in physical contact with said substrate, and wherein said pad area comprises... an active device of said semiconductor structure disposed in said substrate.” as recited in currently amended independent Claim 1.

Kloen is very different from the Claimed invention. In fact, Kloen *teaches away* from the Claimed invention by teaching having a passivating material between a pad area and a substrate that includes an active device. In direct contrast to the Claimed invention, in Kloen the pad area is unmistakably separated and not in contact with the substrate that includes the active device. Figure 2 of Kloen provides a clear illustration of this fact. Figure 2 of Kloen shows bond pad 3 separated from active circuit devices 7 by a layer of passivating material 20.

Furthermore, Kloen even provides a rationale to further emphasis why the active device is separated from the substrate (substrate within which an active circuit resides) by the passivating material. In Kloen, the passivating material is used as shielding by the active circuits. Kloen states in part that “in order to counteract the occurrence of damage to the active circuit area of the integrated circuit device due to forces exerted during bonding of a wire to each one of the bond pads, the layer of passivating material is composed of polyimide...The polyimide absorbs and controls stresses transmitted from the bond pads to the active circuit area and, hence, provides for stress relief during the wire bonding.” (Kloen, Page 1, lines 15–25) Thus, Applicant respectfully asserts the Kloen reference not only fails to render the

present claimed invention obvious, it specifically *teaches away* from the claimed invention.

Further, Applicant respectfully asserts that the Suthar reference does not overcome the shortcomings of the Kloen reference. The Suthar reference is completely silent and does not address the defects of the Kloen reference. In particular, the Suthar reference, alone or in combination with Kloen, fails to teach, suggest, or render obvious “a pad area, wherein said pad area is disposed directly above and in physical contact with said substrate, and wherein said pad area comprises... an active device of said semiconductor structure disposed in said substrate.” as recited in currently amended independent Claim 1.

Consequently, Applicant respectfully reasserts the Kloen reference alone or in combination with the Suthar reference does not teach the present claimed invention. Therefore, Claim 1 is in condition for allowance. Also, Claims 2–6 overcome the Examiner’s prior basis for rejection under 35 U.S.C. 103(a) as being dependent on an allowable base claim.

SUMMARY

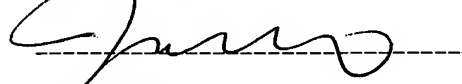
In view of the foregoing remarks, the Applicant respectfully submits that the pending claims in the instant patent application are in condition for allowance. The Applicant respectfully requests reconsideration of the Application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact James Hao at the below listed phone number.

Dated: 9/20, 2006

Respectfully submitted,

WAGNER, MURABITO & HAO LLP



James Hao

Address:

Registration No. 36,398

Two North Market Street

Third Floor

San Jose, California 95113

Telephone:

(408) 938-9060 Voice

(408) 938-9069 Facsimile